1. Pr(class = +1|a > 10) = 50%, Pr(class = −1|a > 10) = 50%
   1-0.5^2-0.5^2 = 0.5

2. Pr(class = +1|a ≤5) = 100%, Pr(class = −1|a ≤5) = 0%
   1-1^2-0^2 = 0

3. Pr(class = +1|a > 5) = 1/3, Pr(class = −1|a>5) = 2/3
   1-(1/3)^2-(2/3)^2 = 4/9
   P(a>5) = 0.75,P(a≤ 5)=0.25

   gini impurity = P(a>5)* 4/9 + P(a≤5)*0=0.75*(4/9)+0.25*0=0.333

4.

+1	-1
2	1
3	4
	5
	6
	7
	8